



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

February 10, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Pilgrim International, Inc. - Plant #3 / 039-18601-00094

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FN-REGIS.dot 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

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February 10, 2004

Mr. Steve Bennet
Pilgrim International, Inc. – Plant #3
14489 U. S. 20
Middlebury, IN 46540

Re: Registered Construction and Operation Status,
039-18601-00094

Dear Mr. Bennet:

The application from Pilgrim International, Inc. – Plant #3, received on January 9, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1 it has been determined that the following emission units, to be located at 105 County Road 14, Middlebury, Indiana, are classified as registered:

- (a) One (1) Recreational Vehicle (RV) assembly area, with a maximum production capacity of three (3) vehicles per hour, including the following:
 - (1) One (1) spray coating area for airless spray coating operation using WD-40 and clear spray on enamel.
 - (2) Manual surface coating operation (non-spray) including extrusion, roll coating, brushing and wiping.
- (b) One (1) woodworking area, including the following equipment: one (1) pin router, two (2) belt sanders, three (3) drill presses, two (2) band saws, two (2) radial arm saws, one (1) table saw, eight (8) miter saws (chop saws), one (1) grove router, equipped with a cyclone, processing 400 pounds per hour of lumber.
- (c) Five (5) natural gas-fired space heaters, with a total maximum heat input capacity of 2.2 mmBtu/hr.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

- (2) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the daily volume-weighted average volatile organic compound (VOC) content of coating delivered to the applicators when coating metal at the one (1) RV assembly line shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Compliance with this rule shall be achieved through daily volume weighted averaging of all coatings applied to metal substrates pursuant to 326 IAC 8-1-2(a)(7), by using the following equation:

$$c = n$$

$$? \text{ production rate (units/hour)} \times \text{coating (gallons/unit)} \times \text{VOC content (lb/gal of coating less water)}$$

$$c = 1$$

$$c = n$$

$$? \text{ production rate (units/hour)} \times \text{coating (gallons/unit)}$$

$$c = 1$$

- (3) Any change or modification that may increase the potential to emit of a single Hazardous Air Pollutant (HAP) to ten (10) tons per year or greater, or that of Volatile Organic Compounds (VOC) or any combination of HAPs to twenty-five (25) tons per year or greater, shall require prior approval of the Office of Air Quality.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File - Elkhart County
Elkhart County Health Department
Air Compliance – Tony Pelath
Northern Regional Office
Permit Tracking
Compliance Data Section

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3)

Company Name: Pilgrim International, Inc. – Plant # 3
Address: 105 County Road 14
City: Middlebury, IN 46540
Authorized individual:
Phone #:
Registration #: 039-18601-00094

I hereby certify that **Pilgrim International, Inc. – Plant # 3** is still in operation and is in compliance with the requirements of Registration **039-18601-00094**.

Name (typed):
Title:
Signature:
Date:

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Pilgrim International, Inc. – Plant # 3
Source Location:	105 County Road 14, Middlebury, IN 46540
County:	Elkhart
SIC Code:	3792
Registration No.:	039-18601-00094
Permit Reviewer:	Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Pilgrim International, Inc. – Plant # 3 relating to the construction and operation of a pull-type Recreational Vehicle assembly and surface coating operation.

Emission Units and Pollution Control Equipment

The source also consists of the following facilities/units:

- (a) One (1) Recreational Vehicle (RV) assembly area, with a maximum production capacity of three (3) vehicles per hour, including the following:
 - (1) One (1) spray coating area for airless spray coating operation using WD-40 and clear spray on enamel.
 - (2) Manual surface coating operation (non-spray) including extrusion, roll coating, brushing and wiping.
- (b) One (1) woodworking area, including the following equipment: one (1) pin router, two (2) belt sanders, three (3) drill presses, two (2) band saws, two (2) radial arm saws, one (1) table saw, eight (8) miter saws (chop saws), one (1) grove router, equipped with a cyclone, processing 400 pounds per hour of lumber.
- (c) Five (5) natural gas-fired space heaters, with a total maximum heat input capacity of 2.2 mmBtu/hr.

Source Definition

Pilgrim International, Inc. consists of two (2) plants in Middlebury, Indiana:

- (a) Plant 1 is located at 14489 U. S. 20, Middlebury, Indiana 46540; and
- (b) Plant # 3 is located at 105 County Road 14, Middlebury, Indiana 46540.

The two (2) plants are located three (3) miles apart, and are independent operations. The new plant at 105 C. R. 14 does not receive any input from, or provide any output to the existing permitted facility at 14489 U. S. 20 location.

Based on the above, Office of Air Quality has decided to treat the two sources as separate. This source determination relies on the assumption that neither plant shall send any significant output to the other.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
S1-S5	Space Heaters	18-24	0.5-0.75	400 (each)	300

S6	Woodworking	20	1.5	5,500	Ambient

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 9, 2004, with additional information received on January 30, 2004.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

HAP Emissions from Surface Coating Operation:

Alpha 8011: No HAP

Alpha Pemco 3015: Dibutyl Thalate = 3%; Usage = 0.045 gal/hr; Density = 9.1 lb/hr.
HAP emissions = 0.01 lb/hr = **0.05 tpy**

Pemco 3100: No HAP

Alpha P015: No HAP

Adhesive XB -2906: No HAP

Oatey Cleaner 30223: NO HAP

Freeze Ban 30765: Propylene Glycol < 1%.
HAP Emissions = Negligible

Oatey Joint Compound: No HAP

Oatey Clear Cleaner 30766: MEK = 80%; Usage = 0.04 gal/hr; Density = 6.7 lb/gal
MEK Emissions = 0.03 lb/hr = **0.14 tpy**

Pipe Cement: MEK = 75%; Usage = 0.0045 gal/hr; Density = 7.1 lb/gal
MEK Emissions = 0.02lb/hr = **0.10 tpy**

Geocel Caulk 2300: Aromatic Hydrocarbon = 35%; Usage = 0.09 gal/hr; Density = 7.7 lb/gal
HAP Emissions = 0.22 lb/hr = **0.98 tpy**

Geocel Caulk Black: Aromatic Hydrocarbon = 35%; Usage = 0.0045 gal/hr; Density = 7.7 lb/gal
HAP Emissions = 0.01 lb/hr = **0.05 tpy**

Geocel Caulk Clear: Aromatic Hydrocarbon = 35%; Usage = 0.17 gal/hr; Density = 7.7 lb/gal
HAP Emissions = 0.46 lb/hr = **2.0 tpy**

Stationary Seal 5000: No HAP

Sure Bond SB-140: Aliphatic Hydrocarbon = 13.3%; Usage = 0.037 gal/hr; Density = 11.4 lb/gal
HAP Emissions = 0.05 lb/hr = **0.25 tpy**

Spray Enamel Clear: Combination HAP = 34.9%; Usage = 0.0045 gal/hr; Density = 6.1 lb/gal
HAP Emissions = **0.01 tpy**

WD-40: Combination HAPs = 90%; Usage = 0.003 gal/hr; Density = 5.9 lb/gal
HAP Emissions = 0.02 lb/hr = **0.07 tpy**

Westech HSC13: Cyclohexane = <0.3%;
HAP Emissions = **Negligible**

Westech WT-TTC: Cyclohexane < 1%
HAP Emissions = **Negligible**

BUTU Tape 180B: No HAP

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	4.25
PM-10	4.25
SO ₂	Negligible
VOC	11.12
CO	0.80
NO _x	1.00

HAPs	Potential to Emit (tons/yr)
Single HAP	<10
Total	<25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has

been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

- (b) Elkhart County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) This source performs surface coating operation on Recreational Vehicles with average vehicle weight of 7,483 pounds, which does not meet the definition of automobile or light duty truck as defined in 40 CFR 60.390. Therefore, it is not subject to the requirements of the New Source Performance Standard, 326 IAC 12 (40 CFR 60, Subpart MM) – Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations.
- (b) This source is not subject to the requirements of the proposed National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart IIII – Standards for Auto and Light Duty Trucks, because it is not a major source for HAPs and is not involved in the surface coating of automobiles or light duty trucks.
- (c) This source is not subject to the requirements of the proposed National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart MMMM – Standards for Miscellaneous Metal Parts and Products Surface Coating, because it is not a major source for HAPs.
- (d) This source is not subject to the requirements of the proposed National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart PPPP – Standards for Plastic Parts Surface Coating, because it is not a major source for HAPs.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is not a major stationary source under 326 IAC 2-2 because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it has the potential to emit more than ten (10) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this RV assembly and surface coating operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Process Operations)

(a) The requirements of 326 IAC 6-3 are not applicable to the one (1) RV assembly line because:

- (1) All coatings, with the exception of the Spray On Enamel and the WD-40, are applied by extrusion, roll coating, brushing or wiping. These application methods do not cause particulate emissions, and are exempt from the requirements of 326 IAC 6-3-2 pursuant to 326 IAC 6-3-1(b).
- (2) The coatings which are not exempt in (a)(1) above use less than five (5) gallons per day, and are therefore exempt under 326 IAC 6-3-1(b)(15).

The particulate matter (PM) from the woodworking facility shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

For a process weight of 400 pounds per hour, the PM shall be limited to 1.39 tons per year. The PM emissions from the woodworking operation before control is less than 1.39 tons per year. Therefore, the source is in compliance with 326 IAC 6-3-2.

326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)

This source performs surface coating operation for RVs which have an average weight of 7,483 pounds, which does not meet the definition of "light duty trucks" as specified in 326 IAC 8-2-2(a). Therefore, 326 IAC 8-2-2 does not apply.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the daily volume-weighted average volatile organic compound (VOC) content of coating delivered to the applicators when coating metal at the one (1) RV assembly line shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Compliance with this rule shall be achieved through daily volume weighted averaging of all coatings applied to metal substrates pursuant to 326 IAC 8-1-2(a)(7), by using the following equation:

$$\begin{aligned} c &= n \\ ? \text{ production rate (units/hour)} \times \text{coating (gallons/unit)} \times \text{VOC content (lb/gal of coating less water)} \\ c &= 1 \end{aligned}$$

$$\begin{aligned} c &= n \\ ? \text{ production rate (units/hour)} \times \text{coating (gallons/unit)} \\ c &= 1 \end{aligned}$$

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements)

The potential VOC emissions from all emission units are less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Conclusion

The construction and operation of this pull-type Recreational Vehicle assembly and surface coating operation shall be subject to the conditions of the Registration No.: 039-18601-00094.

Appendix A: Emissions Calculations

Page 1 of 5 TSD App A

Natural Gas Combustion Only**MM BTU/HR <100****Space Heaters****Company Name: Pilgrim International, Inc.****Address City IN Zip: 105 County Road 14, Middlebury, IN 46540****Permit Number: 039-18601****Plt ID: 039-00094****Reviewer: Madhurima D. Moulik****Date: 30-Jan-04**Heat Input Capacity
MMBtu/hrPotential Throughput
MMCF/yr

2.2

19.3

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	1.0	0.1	0.8

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

updated 4/99

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Space Heaters****HAPs Emissions****Company Name: Pilgrim International, Inc.****Address City IN Zip: 105 County Road 14, Middlebury, IN 46540****Permit Number: 039-18601****Plt ID: 039-00094****Reviewer: Madhurima D. Moulik****Date: 16-Jan-04**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.024E-05	1.156E-05	7.227E-04	1.734E-02	3.276E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.818E-06	1.060E-05	1.349E-05	3.662E-06	2.024E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations
Woodworking Operations**

Page 3 of 5 TSD App A

Company Name: Pilgrim International, Inc.
Address City IN Zip: 105 County Road 14, Middlebury, IN 46540
Registration No: 039-18601
Plt ID: 039-00094
Reviewer: Madhurima D. Moulik
Date: 30-Jan-04

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)
woodworking	80.0%	0.0040	5500	0.943	4.13	0.189	0.826

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Allowable Rate of Emissions

Process Rate (lbs/hr)	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
400	0.200	1.39

Methodology

Allowable Emissions = $4.10(\text{Process Weight Rate})^{0.67}$

**VOC and Particulate
From Surface Coating Operations**

Company Name: Pilgrim International, Inc.
Address City IN Zip: 105 County Road 14, Middlebury, IN 46540
Permit Number: 039-18601
Plt ID: 039-00094
Reviewer: Madhurima D. Moulik
Date: 30-Jan-04

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Alpha 8011	8.4	33.00%	32.0%	1.0%	45.5%	65.00%	0.18500	3.000	0.15	0.08	0.05	1.11	0.20	0.00	0.13	100%
Alpha Pemco 3015	9.1	4.40%	0.0%	4.4%	0.0%	58.00%	0.01500	3.000	0.40	0.40	0.02	0.43	0.08	0.00	0.69	100%
Pemco 3100	8.4	15.00%	0.0%	15.0%	0.0%	66.00%	0.03800	3.000	1.25	1.25	0.14	3.43	0.63	0.00	1.90	100%
Alpha P1015	9.3	34.00%	0.0%	34.0%	0.0%	66.00%	0.07500	3.000	3.16	3.16	0.71	17.07	3.11	0.00	4.79	100%
Adhesive XB-2906	9.6	0.00%	0.0%	0.0%	0.0%	100.00%	0.06500	3.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Oatey Cleaner 302223	8.9	75.00%	0.0%	75.0%	0.0%	25.00%	0.01300	3.000	6.66	6.66	0.26	6.23	1.14	0.00	26.64	100%
Freeze Ban 30765	8.5	81.00%	74.0%	7.0%	75.0%	93.00%	0.17500	3.000	2.38	0.60	0.31	7.51	1.37	0.00	0.64	100%
Oatey Joint Compound	12.5	30.00%	0.0%	30.0%	0.0%	70.00%	0.00170	3.000	3.74	3.74	0.02	0.46	0.08	0.00	5.34	100%
Clear Cleaner 30766	6.7	80.00%	0.0%	80.0%	0.0%	20.00%	0.01300	3.000	5.40	5.40	0.21	5.05	0.92	0.00	26.99	100%
Pipe Cement 771, 772	7.1	75.00%	0.0%	75.0%	0.0%	70.00%	0.00150	3.000	5.35	5.35	0.02	0.58	0.11	0.00	7.65	100%
Geocel Caulk 2300	7.7	36.00%	0.0%	36.0%	0.0%	63.80%	0.03000	3.000	2.78	2.78	0.25	6.00	1.10	0.00	4.36	100%
Geocel Caulk Blk	7.7	36.00%	0.0%	36.0%	0.0%	63.80%	0.00150	3.000	2.78	2.78	0.01	0.30	0.05	0.00	4.36	100%
Geocel Caulk Clear	7.7	36.00%	0.0%	36.0%	0.0%	63.80%	0.05600	3.000	2.77	2.77	0.47	11.18	2.04	0.00	4.34	100%
Sta Seal 5000	10.0	0.00%	0.0%	0.0%	0.0%	100.00%	0.00200	3.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Sure Bond 140-SB-WC	11.4	20.00%	15.0%	5.0%	0.0%	70.00%	0.01230	3.000	0.57	0.57	0.02	0.50	0.09	0.00	0.81	100%
Spray On Enamel	6.1	62.50%	27.6%	34.9%	27.6%	10.00%	0.00150	3.000	2.93	2.12	0.01	0.23	0.04	0.01	21.19	75%
WD-40	5.9	90.00%	0.0%	90.0%	0.0%	30.00%	0.00100	3.000	5.30	5.30	0.02	0.38	0.07	0.00	17.68	75%
Westech WT-HSC13	5.0	0.30%	0.0%	0.3%	0.0%	97.30%	0.00900	3.000	0.01	0.01	0.00	0.01	0.00	0.00	0.02	100%
Westech WT-TTC-30	5.8	1.00%	0.0%	1.0%	0.0%	30.00%	0.09500	3.000	0.06	0.06	0.02	0.40	0.07	0.00	0.19	100%
BUTU Tape 180B	16.4	0.00%	0.0%	0.0%	0.0%	100.00%	0.00250	3.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

PTE (tons/yr) =

11.11

0.01

Only WD-40 and Spray on enamel are sprayed. All other chemicals are applied manually (extruded, wiped, roll coated, brushed)

Total Emissions

Company Name: Pilgrim International, Inc.
Address City IN Zip: 105 County Road 14, Middlebury, IN 46540
Permit Number: 039-18601
Pit ID: 039-00094
Reviewer: Madhurima D. Moulik
Date: 3rd Feb 2004

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Facility	Potential Emissions (tons/year)						
	PM	PM-10	SO2	NOx	VOC	CO	HAPs
Space Heaters	0.10	0.10	0.00	1.00	0.10	0.80	0.00
Woodworking	4.13	4.13	0.00	0.00	0.00	0.00	0.00
Surface Coating	0.02	0.02	0.00	0.00	11.02	0.00	3.65
PTE (tons/yr) =	4.25	4.25	0.00	1.00	11.12	0.80	3.65